

CLAIMS:

1. A temperature indicating material, comprising:
an electron donating compound;
5 an electron accepting compound;
a reversible material causing reversible transformation
between crystal and amorphous, or reversible transformation between
phase separation and non-phase-separation, with respect to a part or
all of the composition system; and
10 a temperature characteristic controller;
wherein the temperature characteristic controller is solid-
state in room temperature,
wherein at least a part of the temperature characteristic
controller dissolves in the electron accepting compound, the
15 reversible material, or the electron accepting compound and the
reversible material so as to change speed of the reversible
transformation between crystal and amorphous, or speed of the
reversible transformation between phase separation and non-phase-
separation, with respect to the composition system, by its reversible
20 transformation between crystal and amorphous, or speed of the
reversible transformation between phase separation and non-phase
separation,
wherein ratio between one mutual action and another mutual
action, one mutual action is the mutual action between the electron
25 donating compound and the electron accepting compound after phase
separation with respect to the composition system in accordance with

change of temperature and time after initialized by heating and quenching, another mutual action is the mutual action between the electron donating compound and the electron accepting compound before initialized, is same or more to the same kind of ratio with respect to the temperature indicating material not including the temperature characteristic controller.

2. A temperature indicating material according to claim 1, wherein the temperature characteristic controller is aromatic alcohol including at least one phenol hydroxide group.

3. A temperature indicating material according to claim 2, wherein the temperature characteristic controller is p-hydroxy phenethyl alcohol.

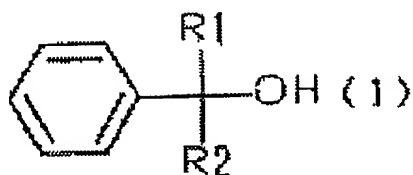
4. A temperature indicating material according to claim 2, wherein the temperature characteristic controller is 2-hydroxy benzyl alcohol.

5. A temperature indicating material according to claim 2, wherein the temperature characteristic controller is vanillyl alcohol.

6. A temperature indicating material according to claim 1, wherein the temperature characteristic controller is aromatic alcohol.

7. A temperature indicating material according to claim 6, wherein the aromatic alcohol is piperonyl alcohol.

8. A temperature indicating material according to claim 6, wherein the aromatic alcohol having structure below.



R1 and R2 are certain group consist of C, H, O

9. A temperature indicating material according to claim 8 wherein the aromatic alcohols is benzoin.

10. A temperature indicating material according to claim 8, wherein the aromatic alcohols is benzhydrol.

11. A temperature indicating material according to claim 8, wherein the aromatic alcohol is triphenylmethanol.

12. A temperature indicating material according to claim 8, wherein the aromatic alcohol is methyl benzylate.

13. A temperature indicating material according to claim 8, wherein the aromatic alcohol is benzyl DL-mandelic.

14. A temperature indicating material according to claim 1, wherein the temperature characteristic controller is the material having at least one benzoyl group.

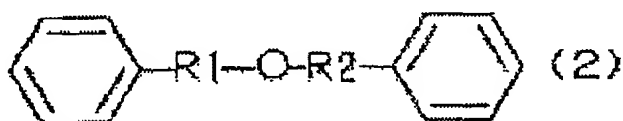
15. A temperature indicating material according to claim 14, wherein the temperature characteristic controller is benzyl.

16. A temperature indicating material according to claim 14, wherein the temperature characteristic controller is benzoin isopropyl ether.

17. A temperature indicating material according to claim 14, wherein the temperature characteristic controller is benzyl phenyl ketone.

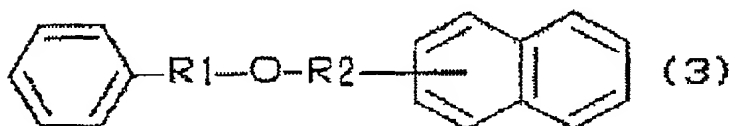
18. A temperature indicating material according to claim 14,
wherein the temperature characteristic controller is methyl 2-
benzoylbenzoate.

19. A temperature indicating material according to claim 1,
wherein the temperature characteristic controller is aromatic ether
compound having structure below.



R1 and R2 are not added, or methylene group

or



R1 and R2 are not added, or methylene group

20. A temperature indicating material according to claim 19,
wherein the ether compound is benzyl 2-naphthyl ether.

21. A temperature indicating material according to claim 19,
wherein the ether compound is 1-benzyloxy-2-methoxy-4-(1-
propenyl)benzene.

22. A temperature indicating material according to claim 1,
wherein the temperature characteristic controller has three benzene
rings, and be capable of dissolving the electron donating compound,
the electron accepting compound, or electron donating compound and
the electron accepting compound in melting operation.

23. A temperature indicating material according to claim 22,

wherein the temperature characteristic controller is 4-benzyl biphenyl.

24. A temperature indicating material according to claim 22, wherein the temperature characteristic controller is terphenyl.

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